

**ABSTRACT**

The present invention relates to a method for producing a cellulose solution which is homogeneous at low temperatures, and to fiber produced by the method. More particularly, the invention relates to a production of a cellulose solution which is homogeneous at low temperatures, by dissolving a small amount of the cellulose powder in concentrated liquid N-methylmorpholine-N-oxide (NMMO) to lower the solidification temperature of NMMO, introducing the low-temperature, concentrated liquid NMMO solution having cellulose dissolved and the cellulose powder into a kneader, mixing and swelling the cellulose in the kneader without a process of reducing pressure to produce a paste, and then supplying the paste into an extruder to dissolve the paste in a homogeneous solution.